

IN THE CLAIMS:

Claims 2, 4-10, 12, 14, 15, and 17-26 were previously cancelled. Claims 27-30 are herein cancelled. New claim 31 is presented herein. All of the pending claims are presented below. This listing of claims will replace all prior versions and listings of claims in the application. Please enter these claims as amended.

Listing of the Claims:

1. (Previously presented) A recombinant receptor comprising:
an extracellular ligand-binding domain of a mammalian receptor; and
a cytoplasmic domain comprising a domain derived from a cytoplasmic domain of a mammalian receptor, at least one activation site that is a tyrosine residue and a heterologous bait polypeptide heterologous to the domain derived from a cytoplasmic domain of a mammalian receptor;
wherein said cytoplasmic domain comprises JAK-binding site; and
wherein the activation of said recombinant receptor is inhibited by binding of a fusion protein to said heterologous bait polypeptide, said fusion protein comprising a prey polypeptide and at least one of an inhibitor of the activation of said recombinant receptor that is selected from the group consisting of a member of the SOCS family, a JAK-phosphatase, and a STAT-phosphatase.
2. (Cancelled).
3. (Previously presented) The recombinant receptor of claim 1, wherein said recombinant receptor is activated by the addition of a compound that disrupts an interaction between said heterologous bait polypeptide and said prey polypeptide.
- 4.-10. (Cancelled).
11. (Previously presented) A vector encoding the recombinant receptor of claim 1.

12. (Cancelled).

13. (Previously presented) A eukaryotic cell comprising the recombinant receptor of claim 1.

14-15. (Cancelled).

16. (Previously presented) A cloning vector encoding a recombinant receptor, comprising:

a nucleotide sequence encoding a cytoplasmic domain of a mammalian receptor, wherein the nucleotide sequence comprises at least one restriction site configured to allow an in frame fusion of a nucleic acid sequence encoding a bait polypeptide, wherein insertion of the nucleic acid sequence encoding said bait polypeptide results in the vector of claim 11.

17-30. (Cancelled).

31. (New) A recombinant receptor comprising:

an extracellular ligand-binding domain of a mammalian receptor; and

a cytoplasmic domain comprising

a domain derived from a cytoplasmic domain of a mammalian receptor,

at least one activation site that is a tyrosine residue, and

a heterologous bait polypeptide heterologous to the domain derived from a cytoplasmic domain of a mammalian receptor and JAK-binding site